

FORM PTO-1390  
OFFICE  
(Modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK

ATTORNEY'S DOCKET NUMBER

32860-000901/US

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

NEW APPLICATION

EXPRESS MAIL NO.  
**107539817**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

INTERNATIONAL APPLICATION NO.

PCT/DE2003/004127

INTERNATIONAL FILING DATE

December 15, 2003

PRIORITY DATE CLAIMED

December 19, 2002

## TITLE OF INVENTION

DNA CHIP COMPRISING A MICROARRAY MADE OF AN MICROELECTRODE SYSTEM

## APPLICANT(S) FOR DO/EO/US

Walter GUMBRECHT, Konrad MUND, Meinrad SCHIENLE and Roland THEWES,

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39 (1).
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau). **WO 2004/057334A1**
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☒ is transmitted herewith.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4)
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 20. below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98-1449, International Search Report (PCT/ISA/210), PTO Form 1449 w/ Five (5) References, German Office Action dated 03-24-2005 and German Translation Aid
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☒ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information:  
1) Formal Drawings (7 Sheets)

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| U.S. APPLICATION NO. <b>10/539817</b><br><b>NEW APPLICATION</b>  |                                     | INTERNATIONAL APPLICATION NO<br><b>PCT/DE2003/004127</b> |   | ATTORNEY'S DOCKET NUMBER<br><b>32860-00901/US</b> |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
|--|-------------------------------------|--|---|---|-------------|-----|------|-------------------------------|----------|------|--------------------------------|----------|------|-------------------------------------|----------|---|--|--------------|--------------|--|--|
| 21. <input checked="" type="checkbox"/> The following fees are submitted:<br><br><b>PCT FEES – NATIONAL STAGE:</b><br><br><table style="width:100%;"> <tr> <th style="text-align: left;">Fee Code</th> <th style="text-align: left;">Description</th> <th style="text-align: left;">Fee</th> </tr> <tr> <td>1631</td> <td>Basic National Stage Fee.....</td> <td>\$300.00</td> </tr> <tr> <td>1632</td> <td>National Stage Search Fee.....</td> <td>\$500.00</td> </tr> <tr> <td>1633</td> <td>National Stage Examination Fee.....</td> <td>\$200.00</td> </tr> </table> |                                     |  |   | Fee Code  | Description | Fee | 1631 | Basic National Stage Fee..... | \$300.00 | 1632 | National Stage Search Fee..... | \$500.00 | 1633 | National Stage Examination Fee..... | \$200.00 | <table style="width:100%;"> <tr> <th style="text-align: left;">CALCULATIONS</th> <th style="text-align: left;">PTO USE ONLY</th> </tr> <tr> <td colspan="2" style="height: 100px;"></td> </tr> </table> |  | CALCULATIONS | PTO USE ONLY |  |  |
| Fee Code   | Description                         | Fee  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| 1631   | Basic National Stage Fee.....       | \$300.00   |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| 1632   | National Stage Search Fee.....      | \$500.00   |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| 1633   | National Stage Examination Fee..... | \$200.00   |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| CALCULATIONS   | PTO USE ONLY                        |  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
|  |                                     |  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>ENTER APPROPRIATE FEE AMOUNT =</b>  |                                     |  |   | \$  | 1000.00     |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30<br>Months from the earliest claimed priority date (37 CFR 1.492(e)).  |                                     |  |   | \$  | 130.00      |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| PAGES  | PAGES FILED                         | EXTRA PAGES<br>FILED IN 50 PAGE<br>SEGMENTS              | RATE  |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Total Pages  | 23 - 100 =                          | 0  | X 250.00  | \$  | 0.00        |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| CLAIMS   | NUMBER FILED                        | NUMBER EXTRA   | RATE  |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Total Claims   | 18 - 20 =                           | 0  | X \$50.00   | \$  | 0.00        |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Independent Claims   | 1 - 3 =                             | 0  | X \$200.00  | \$  | 0.00        |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |                                     |  | + \$360.00  | \$  | 0.00        |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>   |                                     |  |   | \$  | 1130.00     |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.   |                                     |  |   | \$  |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>SUBTOTAL =</b>  |                                     |  |   | \$  | 1130.00     |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30<br>Months from the earliest claimed priority date (37 CFR 1.492(f)).  |                                     |  |   | \$  |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>TOTAL NATIONAL FEE =</b>  |                                     |  |   | \$  | 1130.00     |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +   |                                     |  |   | \$  | 0.00        |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>TOTAL FEES ENCLOSED =</b>   |                                     |  |   | \$  | 1130.00     |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
|  |                                     |  |   | Amount to be:                                     | \$          |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
|  |                                     |  |   | refunded  |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
|  |                                     |  |   | charged   | \$          |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| a. <input checked="" type="checkbox"/> A check in the amount of <b>\$1130.00</b> to cover the above fees is enclosed.<br>b. <input type="checkbox"/> Please charge my Deposit Account. No. 08-0750 in the amount of \$                      to cover the above fees.<br>A triplicate copy of this sheet is enclosed.<br>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <b>08-0750</b> .  |                                     |  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| <b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>   |                                     |  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Send all correspondence to:<br><b>Harness, Dickey &amp; Pierce, P.L.C – Customer No. 30596</b><br><b>Post Office Box 8910</b><br><b>Reston, Virginia 20195</b>   |                                     |  |   |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |
| Date: June 20, 2005  |                                     |  | By <u>Donald J. Daley</u><br>Donald J. Daley, Reg. No. 34,313 |   |             |     |      |                               |          |      |                                |          |      |                                     |          |   |  |              |              |  |  |

DJD/let

GERMAN TRANSLATION AID

Es bedeutet: (It means:)

X: Druckschriften, die Neuheit oder Erfindungshöhe allein in Frage stellen

(Publications, which question novelty or just obviousness)

Y: Druckschriften, die die Erfindungshöhe zusammen mit anderen Druckschriften in Frage stellen

(Publications which, together with other publications, question obviousness)

A: Allgemein zum Stand der Technik, technologischer Hintergrund

(General state of the art, technological background)

O: Nicht-schriftliche Offenbarung, z. B. ein in einer nachveröffentlichten Druckschrift abgedruckter Vortrag, der vor dem Anmelde- oder Prioritätstag öffentlich gehalten wurde

(Non-written disclosure, for example, a printed post publication of a lecture which was publicly made before the filing date or priority date)

P: Im Prioritätsintervall veröffentlichte Druckschriften

(Publications publicized in a priority interval)

T: Nachveröffentlichte, nicht kollidierende Druckschriften, die die Theorie der angemeldeten Erfindung betreffen und für ein besseres Verständnis der angemeldeten Erfindung nützlich sein können bzw. zeigen daß der angemeldeten Erfindung zugrunde liegende Gedankengänge oder Sachverhalte falsch sein könnten

(Post publications, not anticipating publications, which refer to the theory of the filed invention and which refer could be useful for a better understanding or, as the case may be, which could show that reasoning or facts of the filed invention are incorrect)

E: Ältere Anmeldungen gemäß §3 Abs.2 PatG (bei Recherchen nach § 43 PatG); ältere Patentanmeldungen oder ältere Gebrauchsmuster gemäß § 15 GbmG (bei Recherchen nach § 7 GbmG)

(Older applications under § 3 section 2 PatG (inquiries under § 43 PatG); older patent applications or patents under § 15 GbmG (inquiries under § 7 GbmG))

D: Druckschriften, die bereits in der Patentmeldung genannt sind  
(Publications, which are cited in the patent application)

L: Aus besonderen Gründen genannte Druckschriften, z. B. zum Veröffentlichungstag einer Entgegnung oder bei Zweifeln an der Priorität.

(Publications which are cited for a particular reason, for example, relative to the publication date of a reference or cast doubt on the priority)

Veröff: Veröffentlichungstag einer Druckschrift im Prioritätsintervall  
(Publication date of a publication in a priority interval)

nr: Nicht recherchiert, da allgemein bekannter Stand der Technik, oder nicht recherchierbar  
(Not searched, because it is known state of the art, or cannot be searched)

=: Druckschriften, die auf dieselbe Ursprungsanmeldung zurückgehen ("Patentfamilien"), oder auf die sich Referate oder Abstracts beziehen.  
(Publications, which refer to the same original application ("patent family"), or which are referred to in reviews or abstracts.)

"-": Nichts ermittelt  
(Nothing discovered)

Hier sind die Ansprüche unter Zuordnung zu den in Spalte 2 genannten relevanten Stellen angegeben.

(The claims are stated herein which refer to the relevant positions recited in column 2.)

|                 |                          |
|-----------------|--------------------------|
| Seite           | (page)                   |
| Zeile           | (line)                   |
| Abbildungen     | (Drawings)               |
| Spalte          | (Column)                 |
| Absatz          | (Paragraph)              |
| Zusammenfassung | (Abstract of Disclosure) |